

Remarks/Arguments

Claims 1-25 are now pending in this application. In the January 14, 2004 Office Action, claims 1-25 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,963,864 to O'Neil et al. (hereinafter "*O'Neil*"). Additionally, the drawings and specification were objected to due to various informalities.

For the reasons set forth below, the applicants respectfully request reconsideration and immediate allowance of this application. Prior to discussing the reasons why the applicants believe that the claims currently pending in this application are allowable, a brief description of the present invention and the cited references is presented.

Summary of the Invention

The present invention provides a system and method for providing a simultaneous ring service. The system utilizes the intelligent functionality of the Advanced Intelligent Network (AIN) of the public switched telephone network (PSTN). The system includes a switch in communication with a landline telecommunications unit, a service control point (SCP) in communication with the switch, and a services node (SN) in communication with the switch. The switch detects a terminating trigger specific to the simultaneous ring service in response to an incoming call. The SCP then executes a series of verifications, including whether the subscriber's landline unit and wireless unit are available, i.e., not busy or otherwise inactive.

If the landline and wireless units are available, the SCP instructs the switch to route the incoming call to the services node. The SN may then launch two outgoing communications in response. The first is to the subscriber's wireless unit and the second is to the subscriber's landline unit. Because the SN is not provisioned with the directory number for the wireless unit, both calls are routed to the switch. By maintaining the directory number for the subscriber's wireless unit exclusively with the SCP, the present invention obviates the expense and time of provisioning the SN with the same data.

The switch may detect a wireless indicator in the first communication as a trigger and query the SCP for the directory number of the wireless unit. Upon obtaining the number from an associated database, the SCP instructs the switch to route the first call to the wireless unit. The

second call from the SN to the switch may be routed by the switch to the landline unit. The SN then connects whichever telecommunications unit answers first to the calling party. The other call is dropped by the SN, and the completed call is forwarded to the switch in order to free the resources of the SN.

According to another aspect of the present invention, the SN may place the outgoing communication intended for the subscriber's landline unit a predetermined time period after placing the outgoing communication intended for the subscriber's wireless unit. For example, the SN may utilize a timer to ensure that the second call is placed to the landline unit a precise, predetermined time after the first call is placed to the wireless unit, i.e. four seconds. In doing so, the SN compensates for the inherent delays in existing wireless networks and ensures that the two units ring simultaneously. Additionally, if one of the units is unavailable, the SCP may instruct the switch to route the incoming communication to the landline unit in order to avoid usurpation of the SN's resources.

Summary of the Cited Reference

O'Neil describes a system and method for providing telecommunication extension services to a subscriber. Upon receipt of a communication directed to a first unit with a first number, the system taught by *O'Neil* provides ringing at a second unit with a second number. When a person answers one of the two units, the other unit continues to ring for a predetermined amount of time, until answered, or until the person cancels the ringing. The basic idea behind *O'Neil* is to provide conference call services. The system provides simultaneous ringing, one person answers, the other unit continues to ring, a second person answers the other unit, and the three people are connected in a three-way conference call.

O'Neil teaches a preferred embodiment wherein the SN maintains directory numbers for wireless units within a database. As discussed in detail below, because the SN has a subscriber's wireless number, the SN places an outgoing call to the subscriber's wireless unit, through the switch without a wireless indicator to serve as a trigger to the switch. The only trigger taught by *O'Neil* is one for a call directed to a subscriber's landline unit.

Drawings and Specification

The drawings and specification were objected to in the January 14, 2004 Office Action. Specifically, FIG. 1 contains reference numbers 12, 18, 20, 22, and 26 that refer to multiple elements. Additionally, FIG. 1 has three landline telecommunication units that are not labeled. FIG. 1 and the corresponding description in the specification have been amended to correct the reference numbers. FIG. 1 has also been amended to designate the drawing as "Prior Art" as suggested in the January 14 office action.

FIGS. 2-4 were objected to because references 20A, 20B, and P are not in the specification. The specification has been amended to include references 20A and 20B. Letters within a circle, such as reference "P" in FIGS. 3 and 4, are commonly used to indicate an off-sheet connection between flow charts. The specific letter used for that purpose is not required to be mentioned in the specification, as the specification is clear as to the connection between steps 96 and 100 in FIGS. 3 and 4. See page 17 of the specification, lines 7-12. Accordingly, the applicants respectfully submit that amendments to FIGS. 3 and 4 are not required.

Additionally, the specification was objected to for several informalities. Tandem office 60 was inadvertently referred to as tandem office 54 on page 13, line 16 of the specification. Page 15, lines 6 and 14 of the specification incorrectly refer to block 84 rather than block 86 in FIG. 3. The applicants have amended the specification to correct these errors. However, the January 14 office action indicates that the Examiner interpreted "12A,C" on page 13, line 17 to be "12A-C." This interpretation is incorrect. The applicants intended to express that the tandem office 60 may be in communication with CO switches 12A and 12C, as shown in FIG. 2 and as written in the specification. The applicants respectfully submit that no correction is required.

Independent Claim 1

Claim 1 was rejected under 35 U.S.C. § 102(b) as being anticipated by *O'Neil*. *O'Neil* fails to teach, suggest, or describe each recitation of independent claim 1. In particular, *O'Neil* does not teach "detecting a second terminating trigger in response to the first outgoing communication, and wherein the service control point, in response to detection of the second terminating trigger by the switch, is further for instructing the switch to route the second

outgoing communication to the wireless telecommunications unit” as is recited by claim 1. *O’Neil* teaches a first outgoing communication from the SN to a wireless unit and a second outgoing communication from the SN to a landline unit. Both calls are routed through a switch.

O’Neil teaches in column 16, lines 5-7, “the service provides that a terminating trigger is associated with the wireline number designated by the subscriber.” Again in column 21, lines 15-19, *O’Neil* teaches, “[t]he careful reader will note that the call by the services node to the wireline number is made through end office 16b, and thus, the call may result in another trigger and query to the SCP 24.” So, whenever a call is placed to a wireline number, a trigger at the switch results in a query to the SCP. However, *O’Neil* does not teach a trigger at the switch as a result of a call to a wireless number. The trigger taught by *O’Neil* is in place because the invention of *O’Neil* is directed to using a wireless phone as an extension of the landline phone whenever the landline phone is called. If a call is placed to a valid directory number for the wireless unit, there is no reason for a trigger at the switch. In contrast to the present invention, *O’Neil* teaches storing and retrieving wireless directory numbers at the SN. As a result, the call from the SN to the wireless unit does not contain a wireless indicator that acts as a trigger for the switch. The call is routed directly from the SN, through the switch, to the wireless unit. For at least this reason, independent claim 1 is allowable over *O’Neil*.

Dependent Claims 5, 13, and 21

Claims 5, 13, and 21 were rejected under 35 U.S.C. § 102(b) as being anticipated by *O’Neil*. *O’Neil* fails to teach, suggest, or describe each recitation of dependent claims 5, 13, and 21. In particular, *O’Neil* does not teach “placing the second outgoing communication a predetermined time after placing the first outgoing communication” as recited by claim 5 or “placing the first outgoing communication a predetermined time period before placing the second outgoing communication” as recited by claims 13 and 21. *O’Neil* teaches placing the first outgoing communication to the wireless unit prior to placing the second outgoing communication to the landline unit. In column 21, lines 11-13, the *O’Neil* disclosure states, “[b]y setting up the wireless call first, the goal of ringing both the wireless unit and the wireline unit at the same time is more likely to be accomplished.” *O’Neil* simply teaches placing the call to the wireless unit

“first.” This teaching is not the equivalent to using a timer within the SN to hold the second call for a predetermined time after the first call is placed, i.e. four seconds. For at least this reason, and because claims 5, 13, and 21 depend from allowable independent claims 1, 10, and 18, dependent claims 5, 13, and 21 are allowable over *O’Neil*.

Dependent Claims 8, 16, and 24

Claims 8, 16, and 24 were rejected under 35 U.S.C. § 102(b) as being anticipated by *O’Neil*. *O’Neil* fails to teach, suggest, or describe any recitation of dependent claims 8, 16, and 24. *O’Neil* teaches communicating with a home location register (HLR) to determine the availability of the wireless unit. However, *O’Neil* teaches other methods of determining whether the wireless unit is available. Thus, when the HLR does not respond, other methods for determining availability are employed. This contrasts “determining that the wireless telecommunications unit is available when the home location register does not respond to the query message within a predetermined time period” as recited in claims 8, 16, and 24. For at least this reason, and because claims 8, 16, and 24 depend from allowable independent claims 1, 10, and 18, dependent claims 8, 16, and 24 are allowable over *O’Neil*.

Independent Claim 10

Claim 10 was rejected under 35 U.S.C. § 102(b) as being anticipated by *O’Neil*. *O’Neil* fails to teach, suggest, or describe each recitation of independent claim 10. In particular, *O’Neil* does not teach “detecting a trigger in response to the first outgoing communication; and routing, in response to detection of the trigger, the first communication to the wireless telecommunications unit” as recited by claim 10. As discussed above with respect to independent claim 1, *O’Neil* does not teach detecting a trigger in response to the first communication from the SN directed to the wireless unit. Because *O’Neil* only teaches detecting a trigger for calls directed to the landline unit, and because the SN taught by *O’Neil* has access to the directory number for the wireless unit thereby eliminating the need to query the SCP for the number, *O’Neil* does not teach the trigger detection and response recited in claim 10. Accordingly, independent claim 10 is allowable over *O’Neil*.

Independent Claim 18

Claim 18 was rejected under 35 U.S.C. § 102(b) as being anticipated by *O'Neil*. *O'Neil* fails to teach, suggest, or describe each recitation of independent claim 18. In particular, *O'Neil* does not teach “means for detecting a trigger in response to the first outgoing communication; and switching means for routing, in response to detection of the trigger, the first communication to the wireless telecommunications unit” as recited by claim 18. As discussed above with respect to independent claims 1 and 18, *O'Neil* does not teach detecting a trigger in response to the first communication from the SN directed to the wireless unit. Because *O'Neil* only teaches detecting a trigger for calls directed to the landline unit, and because the SN taught by *O'Neil* has access to the directory number for the wireless unit thereby eliminating the need to query the SCP for the number, *O'Neil* does not teach the trigger detection and response recited in claim 18. Accordingly, independent claim 18 is allowable over *O'Neil*.

Dependent Claims 2-4, 6-7, 9, 11-12, 14-15, 17, 19-20, 22-23, and 25

Because *O'Neil* fails to teach, suggest, or describe the recitations of claims 2-4, 6-7, 9, 11-12, 14-15, 17, 19-20, 22-23, and 25, and because claims 2-4, 6-7, 9, 11-12, 14-15, 17, 19-20, 22-23, and 25 depend from allowable independent claims 1, 10, and 18, dependent claims 2-4, 6-7, 9, 11-12, 14-15, 17, 19-20, 22-23, and 25 are allowable over *O'Neil*.

Amendment And Response
Serial No. 09/877,967

CONCLUSION

In view of the foregoing amendment and remarks, the applicant respectfully submits that the present application is in condition for allowance. Reconsideration and reexamination of the application and allowance of the claims at an early date is solicited. If the Examiner has any questions or comments concerning this matter, the Examiner is invited to contact the applicant's undersigned attorney at the number below.

Respectfully submitted,

MERCHANT & GOULD, LLC



Date: April 14, 2004

By: Leonard J. Hope
Reg. No. 44,774

Merchant & Gould
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
Telephone: 404.954.5100



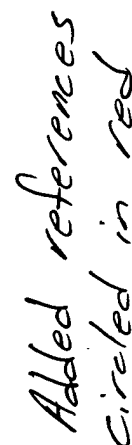


Fig. 1

--Prior Art--